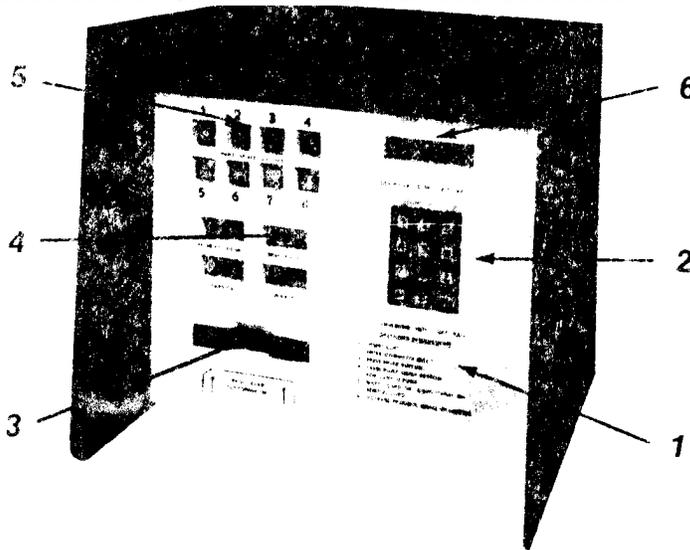


OPERATING PROCEDURE

Instructions for step-by-step operation of the system are printed (1) on the face of the Data Entry Terminal for operator convenience. Instructions for odometer entry are included on systems with optional odometer key pads.

The operator inserts his coded badge into the card reader slot (3) on the data entry terminal, following the illustrated instructions, with the diagonally cut edge forward and to the left.



The message display shows "SELECT PUMP" (4). For systems with optional odometer entry, after inserting the card, the message display will show "ENTER ODOMETER" and "DEPRESS ENTER." The operator then enters, via the numbered keypad (2), the odometer reading for the vehicle by depressing the numbered keypads in sequence, left to right. The numbers will be displayed (6) above the keypad. If correct, depress the "ENT" pad, and the "SELECT PUMP" message will light up. If the numbers displayed are not correct, depress the "CLR" pad (2) and reenter correctly before proceeding.

Press the pump push button (5) corresponding to the pump desired, (and not in use), and the system will then read the information entered and display either "CARD OK" or "CARD INVALID" and "REMOVE CARD." (The card must be removed to activate the pump and cause the selected pump switch to light indicating fueling can start). Requiring card removal helps prevent lost and stolen cards.

If "CARD OK" was displayed and card removed, the operator has 80 seconds, from the time the pump button lights, to begin fueling. If fueling is not started within the 80 seconds, the pump will be deactivated and the card entry procedure must be repeated. If fueling is interrupted for 80 seconds, the system will also be deactivated. The system will, however, have recorded the transaction, with the error message—"TIMED OUT."

If the message display showed "CARD INVALID" it can be for several reasons, such as the improper fuel chosen, or card locked out or inserted improperly, etc. The card should be tried again, making sure the correct procedure is followed. The system will record the transaction and show an error message — "READ ERROR," "LOCKED OUT" etc.

When fueling is completed and the nozzle returned to the dispenser with pump turned off, the transaction is recorded in the memory of the system, and that dispenser is ready for use again.

DATA PROCESSING

The Data stored in the Logic Console memory, from each transaction, can be used to produce a variety of control and informational reports for management for use in billing, cost distribution, vehicle maintenance scheduling, etc.

William M. Wilson's Sons, Inc. has the capability of producing such reports and will, on a negotiated basis, perform the data processing on a periodic basis. The reports programs are also available for purchase or lease.

The standard program formats are: All transactions, by date/time; Vehicle consumption by vehicle/card #/product; Card consumption by card #/vehicle/product; Pump dispensing by location/pump; Pump dispensing by location/product.

OPTIONAL FEATURES AND PROGRAMS

ODOMETER ENTRY — This option has an odometer keypad and lighted display on the data entry terminal for recording vehicle mileage. Programming is provided to store and retrieve the data. The keypad may also be used for entering fuel receipts, oil dispensed, no card transactions, etc., by special programming.

BUILT-IN MODEM — An approved modem can be built into the logic console to connect to a data jack provided by the phone company to access the system memory over a voice grade phone line by dialing the system ID (300 Baud standard, others available).

DIRECT PRINTOUT—Optional programming provides for immediate printout, on a terminal, of each transaction as it occurs.

DUAL PORT — This system provides for an on-site terminal for printout and communication, as well as a remote central terminal, or direct access to the system memory from a main computer.

BISYNC COMMUNICATIONS — Enables CARDROL to emulate an IBM 2780 terminal.

TERMINALS — Other types and makes of terminals are available which provide for single and dual cassettes, 9 ch magnetic tape, diskette, built-in modems; portable units for field use.

ADDITIONAL MEMORY CAPACITY— Up to 32K of memory (1500 transactions) is available to increase the capacity of the system for more lockout or to provide an increased interval between polling, for systems with high transaction rates.

COMPACTED DATA FORMAT — Generally used for dumping data into computer -- all spaces, headings, and punctuation are eliminated. Error messages are reduced to a two-digit code and the last line represents total of all quantity of product within the transaction.

REMOTE PUMP OPERATION—Two programs enabling pumps to be turned on and off from terminal printout by data fields — enables operator to request printout of data in memory in account, vehicle, etc. sequence (four digit numbers only).

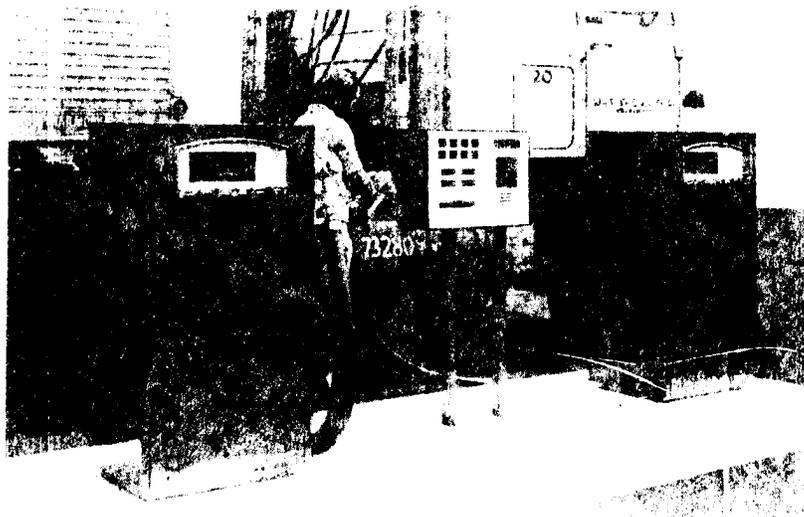
PRINTOUT SPECIFIC ACCOUNT — Same as above except only prints out accounts, etc. requested.

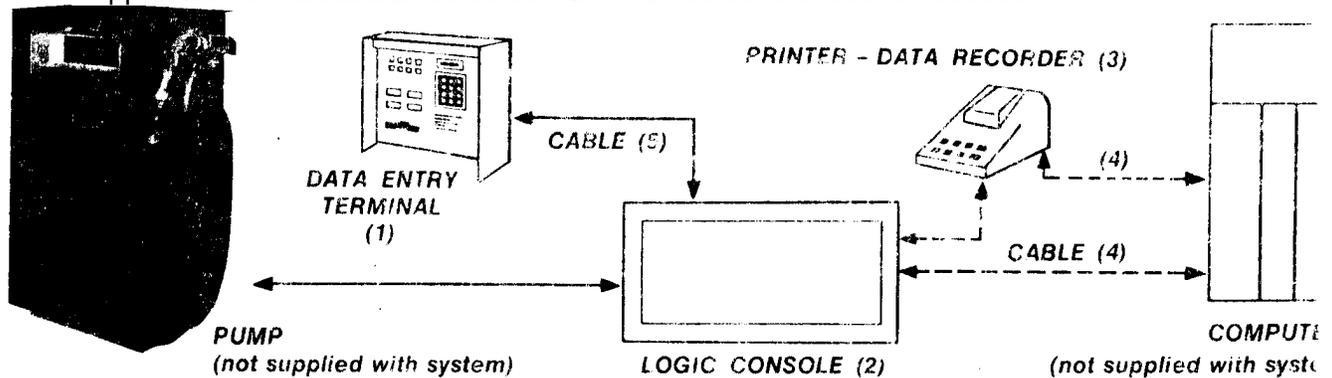
PRICE EXTENSION — Enables system to generate dollar totals for each fueling transaction.

FUEL INVENTORY TOTALS -- Maintains tank inventories . . . printout identified pump, tank, and total number of gallons of fuel remaining.

**GASBOY
CARDROL**

FUEL MANAGEMENT
*'at work' 24 hours a
day . . . everyday . . .
automatically. Pumps
shown are 50 gpm
Model 150.*





STANDARD CARDTROL SYSTEM CONSISTS OF:

THE DATA ENTRY TERMINAL (CARD READER) (1) is designed to be mounted on doors on the pump island. Each unit will be designed to handle from one to eight hoses. One or more DET can be connected to the microprocessor based system control. Each DET contains a static optical card reader or optional magnetic card reader, push buttons and status lights for each pump, card OK and invalid lights and a lighted programmed instructions that guide the driver through the operation of the system. (For systems with odometer entry — optional — the Data Entry Terminal also contains a keypad for entering odometer figure and a lighted digital display which shows the odometer figure entered... see Operating Procedure).

THE MICROPROCESSOR BASED LOGIC CONTROL CONSOLE (2) is connected to the data entry terminals by a Data Transmission Cable (5). The console contains the microprocessor unit; 16K (700 transactions) memory board; and the logic control boards for each pump or dispenser connected to the system. It also contains override switches for each pump controlled by the system to allow manual operation and the RS232C plug for data retrieval. The microprocessor based console stores all fuel transactions in nonvolatile solid state core memory — preventing loss of data in the event of a power failure.

THE PRINTER-DATA RECORDER: (3) Your GASBOY CARDTROL system can be supplied with various printer/data recorders or it can be interfaced with your computer through a cable (4) connected to the RS232C port or through the use of a telephone modem. The standard system is supplied with a T.I. 7 printer. The type of terminal and the system programming will determine the form of the data output — direct printout, tape, or direct access to a main computer with hard copy printout simultaneously.

All of the data, and the terminal commands necessary to access it are fully explained in the Operating Manual supplied with each CARDTROL system.

DATA CONFIGURATION for the standard system is:

Site ID — 2 digits	Time (Military) — 4 digits
Transaction # — 4 digits	Pump # — 2 digits
Card Number (Lockout) — 4 digits	Product Number — 2 digits
Employee Number (Acct.) — 4 digits	Quantity Fuel — 4 digits
Vehicle Number — 4 digits	Odometer — 6 digits (Optional)
Date (Julian) — 4 digits	Error Message — Alpha characters

System ID and Lockout of cards are written into the programming and coded in the badges on a standard system. All pumps under CARDTROL system control can be used simultaneously by access through the Data Entry Terminals.

OTHER STANDARD FEATURES include:

- Microprocessor Design
- Product Quantity Limitation
- Product Type Authorization
- Error Messages
- 10,000 Users
- 100% Lockout
- One or Two Card Operation
- Pump Total Printout on Demand
- One Year Warranty
- One Day Start-up & Orientation service by factory technician

SYSTEM REQUIREMENTS**INSTALLATION**

Pumps or dispensers for use with CARDTROL systems must be ordered with, or existing equipment fitted with, pulsers and detect wires. GASBOY has a wide variety of pumps and dispensers (Models 52, 53, 2150) which meet these specifications. Conduits must be provided for power and detect wires and a separate junction box and conduit for the pulser wires. Pulsar lines may not be run in the same conduit as power lines. If new pumps are purchased, electric resets are recommended.

A separate power line must be provided for the logic console and the Data Entry Terminals.

Conduit is required from the logic console to each Data Entry Terminal if they are more than 10 feet apart. Control wiring may be run from one Data Entry Terminal to the other (in series) and then one line to the logic console if it is more convenient.

The logic control console and printer or data collection devices should be in a location affording security and weather protection.

OPERATION — DATA ACQUISITION

The Operations Manual shipped with each CARDTROL System provides, in great detail, information on the various commands and functions available for communication with, and data retrieval from, the memory in the system.

BRIEFLY: The memory may be accessed by a terminal through either a direct connection, or over a phone line through a modem. The commands and functions are the same once the connection is made. Any unit may be polled by a central location terminal using a terminal and the system or site ID.

By the use of terminals, data processing compatible tapes can be produced, simultaneously with a hard copy, or a computer mainframe can directly access memory.

The terminal operator can:

- LOAD SYSTEM DATA — Date, time, Transaction #. Load or change the system ID; make fuel dispenser assignments.
- LOAD CARD DATA — Load or remove a card #; lockout or validate all cards; check a card #.
- PRINT OUT — Pump totals and assignments; all transactions; all locked out cards; date, time, and transactions.

For each transaction, where necessary, an error message is printed indicating the reason for an incomplete data file or aborted transaction. These are:

- STILL PUMPING — Transaction not complete.
- LOCKED OUT — This card is locked out but an attempt was made to dispense fuel.
- SELECTED PUMP WAS IN USE — Pump selected was already being used.
- TIMED OUT — The transaction was successfully entered but either no fuel was dispensed or 80 seconds elapsed with no pump pulses.
- INVALID FUEL — The pump selected was dispensing a fuel not authorized for this card.
- LIMIT CUTOFF — The product quantity limit for this card was reached. Pump shutdown.
- INVALID SYSTEM ID — Invalid system identification on this card. No access permitted.
- TTY COMMAND — Pump was deactivated by terminal command.
- READ ERROR — Card read error — indicates improperly coded card or data entry terminal malfunction.

WARRANTY

Every GASBOY CARDTROL system is thoroughly tested, under power, and "burned in" using the identical coded badge cards of the user. Hundreds of transactions are performed and output programs checked for accuracy.

Price includes start-up of the system and operator instruction, for one day, after the customer notifies William M. Wilson's Sons, Inc. that the system is in place and ready to operate.

Warranted one year from the date of start-up by GASBOY personnel, but in no case for longer than fifteen months from the date of shipment. The limits of warranty, other than specifically stated above, are given in the standard product warranty #GW83.

GASBOY CARDROL®

MOTOR FUEL MANAGEMENT SYSTEMS . . . SERIES 2000

SITE	TRANS	CARD	ENP	VEH	DATE	TIME	PD	PR	QTY	000H
02	3962	0175	0175	231281	0016	13:19	03	07	010.6	016694
	3963	0283	0283	240131	0016	13:26	03	07	012.9	144876
	3964	0049	0049	151626	0016	13:45	03	07	009.9	079890
	3965	0017	0017	000000	0017	14:10	03	07	015.0	010480
	3966									03968
	3967									14466
	3968									9957
	3969									0104
	3970									0218
	3971									0249
	3972									14467
	3973									9490
	3974									0112
	3975									0112
	3976									0908
	3977									6770
	3978									0574
	3979									0548
	3980									0500
	3981									6901
	3982									5173
	3983									5462
	3984									3638
	3985									0919
	3986									0919
	3987									0773
	3988									0465
	3989									0604
	3990									0710
	3991									7980
	3992									4024
	3993									2113
	3994									2113
	3995									0440
	3996									7600
	3997									7490
	3998	0170	0170	104489	0017	15:00	03	07	017.5	01042
	3999	0179	0179	104489	0017	15:00	03	07	017.5	01042
	4000	0372	0372	211154	0017	15:43	03	07	012.9	073770
	4001	0293	0293	360079	0017	15:46	03	07	012.9	073770
	4002	0174	0174	413667	0017	16:02	03	07	018.8	014356

**GASBOY
CARDROL
FUEL MANAGEMENT SYSTEM**

OPERATING INSTRUCTIONS

1. INSERT CARD.
2. ENTER ODOMETER DIGITS
3. PRESS ENTER BUTTON.
4. PRESS PUMP SELECT BUTTON FOR DESIRED PUMP
5. WHEN "CARD OK" LIGHT COMES ON REMOVE CARD.
6. DISPENSE PRODUCT HANG UP NOZZLE.

WILLIAM M. WILSON'S SONS, INC.
LANSDALE, PA. 18446





GASBOY CARDTROL

**MOTOR FUEL CONTROL AND
DATA ACQUISITION SYSTEMS**

**SOLID STATE — HIGH TECHNOLOGY
MICROPROCESSOR BASED**

GASBOY CARDTROL provides dependable automated 24 hour—round the clock—controlled access to costly motor fuels. Only authorized users may obtain fuels through the use of a high security encoded badge. Each fueling transaction is automatically recorded . . . identifying user, time, date, amount of fuel dispensed, etc. In addition to a printed code, the same information can be captured in machine readable form for further data processing.

SYSTEM FEATURES: 10,000 potential users — owner encoded security badges — one or two card operation; product type authorization and quantity limitation — 100% selective card lockout — data retrieval; printed copy and optional magnetic tape cassettes, reels or diskette as well as direct computer link — stand alone or dial-up operation. Transaction memory holds approximately 700 fueling transactions. Dial-up operation allows control of multiple sites from one central location over standard telephone lines. System design permits card lockout, revalidation, optional pump motor control as well as data collection with a simple phone call.

CARDTROL is being installed by — municipalities — public utilities — oil jobbers — fleet operators — and others who dispense large volumes of fuel and need to control and record each fueling transaction quickly and inexpensively.

Investigate CARDTROL today to see how it can turn yesterday's fuel losses and headaches into tomorrow's PROFITS.

This brochure describes the standard GASBOY dial-up or stand alone CARDTROL system designed to meet the requirements of most users. In addition we will be happy to provide you with information on our computer based on-line system should this approach better meet your needs.

If after looking over this information, you have questions or special need, please contact your local GASBOY distributor or the nearest GASBOY factory office listed below. We will be pleased to discuss your specific requirements, and submit a detailed proposal complete with costs for your evaluation.

Our local qualified GASBOY distributor will be happy to supply information on mechanical and electrical installation of your CARDTROL system.

GASBOY, the innovator of the industry, can draw upon its twenty years experience in Fuel Management Systems, including the largest installed system in the country, to design a dependable system tailored to your needs. Start now to manage your fuel dispensing facilities and turn yesterday's losses and problems into tomorrow's profits and satisfaction.

WILLIAM M. WILSON'S SONS, INC.

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